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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,703

05/02/2006

Karl Krug-Kussius

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25944

7590

10/10/2008

OLIFF & BERRIDGE, PLC

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ALEXANDRIA, VA 22320-4850

EXAMINER

MCCALISTER, WILLIAM M

ART UNIT

PAPER NUMBER

3753

MAIL DATE

DELIVERY MODE

10/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/573,703

Applicant(s)

KRUG-KUSSIUS, KARL

Examiner

WILLIAM MCCALISTER

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 7 is/are rejected.
- 7) ☒ Claim(s) 2-6 and 8-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The Amendment of 7/16/20008 is acknowledged. It amended claims 1, 2, 4, 5, 7, 8 and 12-16. Currently claims 1-16 are pending for consideration.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the parallel bore as described in paragraph 21 of the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required

corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawasaki (US 4,289,160).

Regarding claim 1, Kawasaki discloses a pilot-controlled pressure feed valve, comprising:

a piston (31) of a main stage, the piston being penetrated by a piston bore (38) and capable of controlling a connection between an input port (24) and an output port (26) to be open;

a spring chamber (39) adapted to be connected with the input port via the piston bore and with a control oil drain (51) via a pilot control stage (49), a throttle valve means (37, 43, 45) which throttles a control oil flow in a first direction through the piston bore from the input port into the spring chamber according to a pressure-limiting function (interpreted to read on the flow as member 37 approaches member 44, see col. 3 lines 51-63), and

wherein the throttle valve means controls open a comparatively large cross-section of flow (i.e. – the diameter of bore 38 is not partially blocked) in an anti-cavitation function in the event of a control oil flow in a second direction that opposes the first direction. (See col. 4 lines 38-43, which describes movement of member 28 to the left for performance of an anti-cavitation function. This movement would also force movement of piston 31 and throttle 37 to the left. Importantly, because this condition occurs with low pressure at inlet 24, poppet 44 would be closed, and chamber 39 would be sealed except for the opening created by the piston bore 38. The effect of the described movement to the left would be to increase the pressure in chamber 39 relative to that of inlet 24, and thereby force fluid through bore 38 towards inlet 24.)

Claim 7 is directed to a pressure feed valve, and the environmental recitations fail to further define the pressure feed valve. These recitations therefore have not been interpreted to carry any patentable weight.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claim 7 is alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki as applied to claim 1 above.

Kawasaki discloses his device to be capable of use in hydraulic actuator systems (col. 1 lines 6-7). It was well-known in the art at the time of invention that such systems comprise encompass closed and open hydraulic circuits with fixed and variable displacement motors or pumps. It therefore would have been obvious to one of skill to utilize Kawasaki's device in such a system.

Allowable Subject Matter

6. Claims 2-6 and 8-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach a pilot-controlled pressure feed valve as claimed,

wherein the anti-cavitation function involves flow in a second direction which opposes the direction of flow through the piston bore, and with a throttle valve means and nozzle plate as claimed in claim 2.

Response to Arguments

8. Applicant's arguments filed 7/16/2008 regarding the applicability of US 4,289,160 to amended claim 1 have been fully considered but they are not persuasive. Kawasaki implicitly provides for flow from chamber 39 to inlet 24. See the analysis set forth in the claim rejection above.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. The prior art made of record and not relied upon but which is considered pertinent to applicant's disclosure is: US Patent 3,090,398 which discloses a pilot controlled pressure feed valve meeting the limitations of claims 1 and 2 except for the directions of flow as required by claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM MCCALISTER whose telephone number is (571)270-1869. The examiner can normally be reached on Monday through Friday, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WILLIAM MCCALISTER/
Examiner, Art Unit 3753

/Stephen M. Hepperle/
Primary Examiner, Art Unit 3753

WM
10/7/2008